

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Diane B. ELLIS)	Examiner:	Cole, Elizabeth M.
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Application No.:	10/650,584)	Group Art Unit:	1794
)		
Filed:	August 28, 2003)	Confirmation No.:	7428
)		
Docket No.:	02-270)		
)		
For:	ACID WASHED NONWOVEN FABRIC			

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, the undersigned declarant, Dianne Ellis, do hereby declare and state:

1. I am the named inventor of the invention described and claimed in the above-identified patent application.
2. I am familiar with the subject matter, contents, and relevant portions of the prosecution history of the above-identified application, including the Final Office Action dated January 18, 2008, and the patents referenced therein.
3. I received a Bachelor of Science degree in chemistry from West Virginia University, and I have been employed in the nonwovens industry since 1987.
4. I am currently employed by Polymer Group, Inc. (PGI), as a Senior Scientist in the wipes division. I have responsibility for developing wiping products.
5. I have about 20 years experience in research and development of nonwoven products.
6. I am named as an inventor or co-inventor in many patent applications filed worldwide on technologies related to nonwoven products and/or methods for making them, which include the

following U.S. Patent Application Publications:

2007/0032151 2006/0068673

2007/0060003 2006/0128248

2004/0228904

7. In view of at least the facts set forth above and referenced in paragraphs 1.-6. above, inclusive of my indicated combined educational and practical experience, I believe that I should be considered an expert in the field of nonwoven technology in general, and nonwoven product constructions in particular.

8. My claimed invention concerns manufacture of nonwoven fabric wipe constructs having very low sodium impurity content, particularly less than 45 ppm or 25 ppm sodium content, and low linting. These nonwoven fabric wipes exhibit drape and absorbency so that they can conform well to surfaces being wiped. They also are nonabrasive and low streaking, and softer in hand than nonwoven fabric wipes lacking the acid wash treatment of my invention. The nonwoven fabric wipes of my invention are particularly suitable for use in clean room applications, such as are used in the manufacture of microelectronic components and devices. In such an environment, the provision of drapeable absorbent wipes exhibiting very low sodium content and low linting is extremely important.

9. In rejecting the claims of my patent application, I understand that the U.S. Patent & Trademark Office (PTO) has taken positions in the Final Office Action of January 18, 2008 that my invention is obvious over clean room wipers taught in U.S. Patent No. 5,459,912 to Oathout in view of washing processes taught for use for sintered filter media as in U.S. Patent No. 5,766,353 to Palm et al. and/or for foam and sponge products as in U.S. Patent No. 6,182,323 to

Bahten.

10. Based on my review, the Oathout reference refers to cleanroom fabric type wipers, but does not recognize a problem associated with such fabric-based products with respect to sodium content.

11. Also based on my review, neither of the Palm et al. nor Bahten references uses the word fabric, nonwoven, textile or so forth, so I was surprised to see these references used against my invention from a technical perspective.

12. Based on my review, Palm et al. only refers to washing of sintered inorganic particle composite-based filtration media. From a technical perspective, these filtration media are understood to be rigid static abrasive structures. Based on my experience in the nonwoven industry, possible solutions to problems faced in our technology are not normally sought out in the sintered filtration media area. Soft wipes and rigid inorganic filter media are different technologies. Sintered filtration media materials are not comparable to nonwoven fabrics chemically, physically, nor structurally. Palm et al. is technically understood to teach washing of exposed surfaces of rigid composite surfaces of sintered filter media. In my opinion, a person skilled in the nonwoven arts would not consider washing treatments used on hard static inorganic filtration media surfaces as in Palm et al. to be comparable to, or predictive of results for, washing absorbent drapeable fibrous layers. Among other differences between sintered filtration media and nonwoven fabrics, a nonwoven fibrous layer can absorb the washing fluid and presents a surface area and structure for treatment unlike that which is encountered in washing out static sintered filtration media matrices. Again, my understanding from reading the Oathout reference is that Oathout did not understand, or at least did not teach that he understood, that there was a problem with sodium ion content with nonwoven fabric wipers. My technical

opinion is that this fact makes it unrealistic that a person skilled in the nonwoven arts would have considered looking to wash treatments taught only for use on sintered filtration media according Palm et al., for use on Oathout's fabrics, at the time of my invention.

13. Based on my review, Bahten only refers to porous polymeric devices that are foam or sponge material construction, and not nonwoven fabrics. Bahten refers in particular to polyvinyl acetal porous material made by polymerizing polyvinyl alcohol in the presence of an aldehyde and a pore forming agent. It is technically understand that this polyvinyl acetal porous material is a relatively rigid, at least to the extent it forms porous yet self-supporting structures, which have no technical overlap or predictive relevance with respect to nonwoven fabrics. Further, I understand that the Patent Office attaches significance to "wipe" 105 shown in FIG. 1B of the Bahten reference. My opinion is that feature 105, as depicted in FIG. 1B and described at column 3 of the reference, would be understood and construed by a technical person be a self-supporting foam or sponge member, such as commonly seen and used in household cleaning applications. The rigid slab-shaped wipe 105 is not depicted in FIG. 1B by Bahten in a manner that would suggest that it is a nonwoven fabric in my technical opinion. The nonwoven fabric wipes that are acid washed according to my invention are drapeable and absorbent materials, which allows them to conform well to any cleanable surface in a nonabrasive manner. In my opinion, a person skilled in the nonwoven arts would not assume or predict that a wash treatment useful for stiff self-supporting foam or sponge wipe products, such as disclosed by Bahten, is applicable to the nonwoven fabrics such as taught by Oathout.

14. In view of my foregoing technical explanations and opinions, it is my opinion that a person having ordinary skill in the nonwoven arts at the time of my invention would not have

considered my invention to be obvious over Oathout, Palm et al. and Bahten.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the instant application or any patent issuing therefrom.

Further Declarant sayeth not.

3/7/08
Date

Dianne Ellis
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